ART. X .- An Alphabetical List of Victorian Eucalypts.

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#### [Read 11th August, 1921.]

This is a supplement to a paper, "A Census of Victorian Eucalypts and Their Economics," Rep. Aust. Assoc. Adv. Sci., XIV., 294 (1913), by R. T. Baker.

The letters C.R. and F.F. indicate my "Critical Revision of the Genus Eucalyptus" and "Forest Flora of New South Wales" respectively. In these works I have, as a rule, indicated the references to Victorian localities.

It seems to me that we have 62 species proved to be indigenous to Victoria.

#### 1. E. ALPINA, Lindl.

See C.R., Part IX., p. 259, Plate 41 (1907).

2. E. BAUERIANA, Schauer. (Synonym E. Fletcheri, R. T. Baker).

See C.R., Part XIII., p. 120, Plate 59 (1911); also F.F., Part LVII., p. 149, Plate 215 (1916).

The Metung, Victoria, specimens were collected by A. W. Howitt, and also by myself, following his directions. In C.R., Part XLII., I have enumerated some other Victorian specimens; these are in the Melbourne Herbarium, and were included in E. polyanthemos by Mueller. I have lately received the species with smaller leaves, simulating in that respect E. populifolia to some extent, from Mr. Harry Hopkins, from Orbost and the Tambo River.

## 3. E. Behriana, F. v. M.

See C.R., Part X., p. 335, Plate 48 (1909); also F.F., Part XLVI., p. 111, Plate 172 (1912).

## 4. E. BICOLOR, A. Cunn.

(Quoted by Mr. Baker as E. pendula, A. Cunn., at p. 298, and as E. pendula, F.v.M., at p. 302).

See C.R., Part XI., p. 6, Plate 49 (1910); also F.F., Part XLIV., p. 76, Plate 164 (1911).

There is no such species as *E. pendula*, F.v.M., so far as I am aware, but notes on *E. pendula*, Page, and *E. pendula*, A. Cunn., will be found at pp. 7 and 8 of Part XI. of my C.R. (1910). They are *nomina nuda* and synonyms of *E. bicolor*, A. Cunn.; see p. 6 of that Part, and Plate 49. For some Victorian localities of *E. bicolor*, see p. 10.

# 5. E. BLAXLANDI, Maiden and Cambage.

See E. capitellata, at p. 83 below.

## 6. E. Bosistoana, F.v.M.

See C.R., Part XI., p. 1, with Plate 49 (1910); also F.F., Part XLIII., p. 58, Plate 160 (1911).

## 7. E. Botryoides, Sm.

See C.R., Part XXIII., p. 51, Plates 98, 99 (1915).

## 8. E. CALYCOGONA, Turcz.

See C.R., Part III., p. 83, Plate 9 (1903).

## 9. E. CINEREA, F.V.M.

(Synonyms E. pulverulenta, F.v.M., non Sims; E. Stuartiana, F.v.M., var. cordata, Baker and Smith.)

See C.R., XXI., p. 2, 7 (1914).

# 10. E. CLADOCALYX, F.v.M.

The fact that Mueller suppressed this (1852) name in favour of his own, later described, *E. corynocalyx* (1860) is historical. I have explained the facts in C.R., Part XXXVI., p. 163 (1919), with the evidence as to the Victorian locality, and elsewhere, e.g., *Proc. Roy. Soc. S.A.*, xli., 341 (1917), and they appear to admit of no controversy.

# 11. E. Consideniana, Maiden.

See C.R., Part X., p. 312, Plate 46 (1908); F.F., Part XXXVI., p. 90, Plate 136 (1909).

## 12. E. CORIACEA, A. Cunn.

See C.R., Part V., p. 133, Plates 26-28 (1904); F.F., Part XV., p. 116, Plate 58 (1905).

#### 13. E. CORYMBOSA, Sm.

This was recorded as a Victorian plant by Mueller in his "Eucalyptographia." See C.R., Part XXXIX., p. 246 (1919). See also F.F., Part XII., Plate 45 (1904).

## 14. E. DIVERSIFOLIA, Bonpl.

E. santalifolia, F.v.M., is a synonym of E. diversifolia, Bonpl. See C.R., Part XXXIII., p. 84 (1917), together with Part VII., p. 197, Plate 36 (1905).

## 15. E. dives, Schauer.

See C.R., Part VII., p. 190, Plate 35 (1905); F.F., Part XIX., p. 176, Plate 75 (1906).

## 16. E. DUMOSA, A. Cunn.

I agree with Mr. Baker that this had better stand as a species as distinct from *E. incrassata*. The matter is not free from difficulty, owing to the absence of the type of *E. incrassata*, and I have tried to make the position clear in C.R., Part XXXVIII., p. 223 (1919). For figures see Plate 19, Part IV. (1904). Victorian localities are quoted in both Parts. It is also figured at Plate 245, Part LXV. of F.F., now in the press.

## 17. E. ELAEOPHORA, F.v.M.

See C.R., Part XIX., p. 275, Plates 82 and 83 (1913).

## 18. E. EUGENIOIDES, Sieb.

Dealt with in C.R., Part VIII., p. 232, Plates 39 and 40 (1907). See also F.F., Part XXIX., p. 153, Plate 110 (1908).

E. eugenioides, Sieb., var. nana, Deane and Maiden, I have identified with E. ligustrina, DC.; see C.R., Part XL., p. 332, with Plate 167. I only know it from New South Wales, at no great distance west and south of Sydney, but Mr. Baker quotes Mr. P. R. H. St. John as having found it at Orbost, Victoria. Mr. St. John writes to me recently that he was under the impression that he had sent me one of his Orbost specimens at the

time, but he is under a misapprehension, although he wrote to me about it. I therefore hold *E. ligustrina*, DC., in suspense as a Victorian plant for the present.

## 19. E. FRUTICETORUM, F.v.M., Fragm. ii., 58 (1860-1).

This was subsequently redescribed by Mr. Baker under the name E. polybractec (Proc. Linn. Soc. N.S.W., XXV., 692, 1900). The history of the synonymy is given in C.R., Part XI., figs. 6-8, Plate 52 (1910), with a full plate of a specimen named by Mueller himself, in F.F., Part XLII., p. 27, Plate 156 (1911). See also a paper by me, "Is Eucalyptus fruticetorum, F.v.M., identical with E. polybractea, R. T. Baker?" in Journ. Roy. Soc. Vict., XXVI., 298 (1913). Mr. Baker quotes them as separate species at pages 302 and 307 of his paper.

# 20. E. GIGANTEA, Hook. (Synonym, E. delegatensis, R. T. Baker).

The confusion that has gathered around this species is explained in C.R., Part XX., p. 291, Plate 85 (1914). See also F.F., Part LI., p. 7, Plate 198 (1913), (with photographs).

## 21. E. GLOBULUS, Labill.

See C.R., Part XVIII., p. 249, Plate 79 (1913); also F.F., Part LXVII., Plate 253, now in the press.

## 22. E. GONIOCALYX, F.v.M.

See C.R., Part XIX., p. 267, Plate 81 (1913); F.F., Part V., p. 119, Plate 19 (1903).

# 23. E. GRACILIS, F.v.M.

See C.R., Part XXXIX., p. 265 (1919), as to Victorian localities. See also Part III., p. 81, Plate 12 (1903), as a variety of *E. calycogona*, Turcz.

## 24. E. Gunnii, Hook. f.

See C.R., Part XXVI., p. 108, Plate 108 (1916).

#### 25. E. HEMIPHLOIA, F.V.M.

See C.R., Part XI., with plate 50 (1910) for discussion of the question as to whether E. hemiphloia has for varieties albens.

and microcarpa or not. Both these varieties are common in Victoria, while the typical form does not appear to occur there. For a figure of the normal form, see F.F., Part VI., p. 134, Plate 22 (1904).

#### 26. E. INCRASSATA, Labill.

As to whether typical *E. incrassata*, originally described from Western Australia, has been found in Victoria as distinct from the named varieties of this species, I am not prepared to say, in view of the uncertainty which has gathered around *E. incrassata*. The matter is discussed in my C.R., Part XXXVIII., pp. 220 and 223 (1919).

E. INCRASSATA, Labill., var. ANGUSTIFOLIA, Maiden.

I have described no such variety. It is probably a slip of Mr. Baker's pen for var. angulosa, Benth. See C.R., Part IV., p. 101, Plate 14 (1904), which occurs in Victoria, see p. 108.

27. E. KITSONIANA, Maiden.

See C.R., Part XXVIII., p. 165, with Plate 117 (1916).

28. E. LEUCOXYLON, F.v.M.

See C.R., Part XII., p. 88, Plate 56 (1910).

29. E. LONGIFOLIA, Otto et Link.

See C.R., Part XX., p. 295, Plate 86 (1914); F.F., Part II., p. 37, Plate 5 (1903).

30. E. MACRORRHYNCHA, F.v.M.

See C.R., Part VIII., p. 225, Plate 39 (1907); F.F., Part XXVII., p. 120, Plate 102 (1907).

# 31. E. MACULATA, Hook.

This occurs in Gippsland, Victoria, and notes on the localities will be found in C.R., Part XLIII., Plate 178, now in the press. See also F.F., Part VII., p. 164, Plate 27 (1904).

32. E. MACULOSA, R. T. Baker.

See C.R., Part XXVII., p. 127, with Plate 112 (1916).

33. E. Maideni, F.v.M.

See C.R., Part XVIII., p. 256, Plates 79 and 80 (1913).

## 34. E. MELLIODORA, A. Cunn.

See C.R., Part XIV., p. 135, Plate 61 (1912); F.F., Part IX., p. 197, Plate 35 (1904).

## 35. E. MITCHELLIANA, Cambage.

In Journ. Roy. Soc. N.S.W., LII., 457 (1918), with a plate. Summit of Mt. Buffalo.

## 36. E. Muelleriana, Howitt.

See C.R., Part VIII., p. 219, with Plate 2, Part 1 (1903).

## 37. E. NEGLECTA, Maiden.

See C.R., Part XXVII., p. 151, with Plate 115 (1916).

## 38. E. NITENS, Maiden.

See C.R., Part XIX., p. 272, Plate 81 (1913).

## 39. E. NUMEROSA, Maiden.

For Victorian localities see C.R., Part XXXVIII., p. 233 (1919). For earlier views of the relations of this species, see Part VI., pp. 155, 161, with fig. 1, Plate 30 (1905), and F.F., Part XVII., p. 147, Plate 66 (1905).

# 40. E. obliqua, L'Herit.

See C.R., Part II., p. 51, Plates 5 and 6 (1903); F.F., Part XXII., p. 20, Plate 83 (1907).

## 41. E. odorata, Behr.

See C.R., Part XI., p. 34, Plate 51 (1910), for some Victorian localities.

# 42. E. OLEOSA, F.v.M.

See C.R., Part XV., p. 171, Plates 65 and 66 (1912); modified by Part XXXIX., p. 277 (1919). See also F.F., Part LX., p. 271, Plate 226 (1917).

# 43. E. OVATA, Labill.

I have stated that this includes E. paludosa, R. T. Baker, in Part XXVII., p. 140, figs. 6a-6d, Plate 114 (1916). I have reexamined (1920) E. paludosa with additional material received

from Mr. Baker, which material more closely approximates to the type of *E. ovata* than any I had previously received from him. I have been unable to alter my carefully considered opinion of 1916. (1920).

Concerning E. camphora, R. T. Baker, in C.R., Part XXVII., p. 148, with Plate 115 (1916), I have suggested that this may be a variety (camphora) of E. ovata, Labill. I have (1920) again carefully gone over the ovata-camphora material, with the view of re-establishing E. camphora if I could do so. I find, however, that additional experience and specimens confirm the opinions I expressed at p. 149 (loc. cit.). I find long petioles in both E. ovata and E. camphora, and think I have fairly stated the position for and against species and variety. I know the tree well, not only having observed it carefully in my Victorian tour in 1900, but in New South Wales before and since. "dwarf variety" of Gunnii of Howitt is stated by Mr. Baker to be his E. camphora. At p. 150 (loc. cit.) I have stated that Howitt's "dwarf variety (b)" is E. Kitsoni, Maiden, and that the "Dwarf Highland form (d)" is E. neglecta, Maiden. No other "dwarf variety" is mentioned by Howitt so far as I know, but the "tall mountain form (c)" is E. camphora, R. T. Baker, as stated by me.

## 44. E. PERRINIANA, F.v.M., non R.T.B. et H.G.S.

I have stated the case in C.R., Part XXVI, p. 103, with plate 108 (1916).

# 45. E. PILULARIS, Sm.

See C.R., Part I., p. 38, Plate 1 (1903); F.F., Part XXXI., Plate 116 (1908).

Having re-examined the Victorian specimen that Mr. Baker quotes on my authority (C.R., I., 38) I withdraw it, believing it to be E. Muelleriana, Howitt. It is, however, not quite satisfactory. Professor Ewart informs me, on Mr. St. John's authority, that the specimen attributed to that gentleman was taken from a tree growing in the Melbourne Botanic Gardens. But Professor Ewart also sends me, for examination, a specimen of E. pilularis collected at National Park, Sealer's Cove, Wilson's Promontory (J. W. Audas and P. R. H. St. John, 22nd October, 1909), which, although incomplete, is in my view sufficient to validate record of the species as Victorian. Professor Ewart

also thinks that the McAlister River record, *Mueller* (B.Fl., iii., 208), is probably correct, although the specimen has disappeared from the Melbourne Herbarium. The most southern New South Wales record for *E. pilularis* known to me is Mogo, near Moruya, and it is hoped that specimens will be collected to connect this with the Victorian one.

#### 46. E. POLYANTHEMOS, Schauer.

See C.R., Part XIII., p. 109, with Plate 58 (1911); also F.F., Part LIX., p. 250, Plate 223 (in both these works lanceolate leaves are not shown). In Part XLII., C.R., will be found additional Victorian localities for the species, including some specimens seen by Mueller.

#### 47. E. RADIATA, Sieb.

See C.R., Part XXXVIII., p. 230 (1919) for Victorian localities. For an earlier view as to *E. radiata*, see Part VI. of the same work. See also F.F. (as *E. amygdalina*), Part XVII., Plate 62 (1905).

Concerning E. amygdalina, Labill., and var. australiana, Baker and Smith, my latest views in regard to E. amygdalina and some of its allies will be found in C.R. Part XXXVIII., pp. 227, 229, 233. I agree with Messrs. Baker and Smith that the presence of the Tasmanian E. amygdalina has not yet been proved on the mainland. But both E. radiata, Sieber (E. amygdalina, var. australiana), and E. numerosa, Maiden, species formerly looked upon as synonyms of E. amygdalina, not only occur on the mainland, but are by no means rare in Victoria.

The *E. radiata*, Sieb., referred to by Mr. Baker at p.305 of his paper, is that tree (a "White Gum") confused with it by Bentham, Woolls, others and myself, but which I subsequently showed to be another species under the name of *E. numerosa* (see Journ. Roy. Soc. N.S.W., XXIX., 752, 1904).

## 48. E. REGNANS, F.v.M.

See C.R., Part VII., p. 183, Plate 33 (1905); F.F., Part XVIII., p. 165, Plate 71 (1905).

# 49. E. ROSTRATA, Schlecht.

See C.R., Part XXXIII., p. 68, Plates 136-8 (1917); F.F., Part LXII., p. 49, Plate 223 (1918).

## 50. E. RUBIDA, Deane and Maiden.

See C.R., Part. XXVI., p. 110, Plates 109-111 (1916). Also F.F., Part LXIII., p. 87, Plate 237 (1920). I concur in Mr. Baker's view that this is *E. viminalis* variety (b) of Howitt, but he has overlooked my same record in *Proc. Linn. Soc. N.S.W.*, XXVI., 578 (1901), 12 years earlier.

## 51. E. SIDEROXYLON, A. Cunn.

See C.R., Part XII., p. 82, Plate 55 (1910); F.F., Part XIII., p. 70, Plate 49 (1904).

#### 52. E. SIEBERIANA, F.V.M.

See C.R., Part X., p. 306, with Plate 45 (1908); also F.F., Part XXXIV., p. 49, Plate 128 (1909). As regards the confusion with *E. virgata*, Sieb., see p. 82 below.

## 53. E. SMITHII, R. T. Baker.

See C.R., XII., p. 76, Plate 55 (1910), but without a Victorian locality.

## 54. E. STELLULATA, Sieb.

See C.R., Part V., p. 127, Plate 25 (1904); F.F., Part XIV., p. 94, Plate 54 (1905).

## 55. E. STUARTIANA, F.v.M.

In C.R., Part XXI., pp. 4 and 6, I have explained that Mueller mixed up his *Stuartiana* very much, including no less than three distinct species under that name. *E. Bridgesiana*, R. T. Baker, is the third of these three, and I have pointed out (*op. cit.*, XXIV., p. 68) that the description of a species under another name does not remove the difficulties.

E. Stuartiana (E. Bridgesiana) is described at Part XXIV., p. 68, and Plates 101 and 102 (1915). Victorian localities at p. 69.

E. Stuartiana, F.v.M., as understood by Mr. Baker, is synonymous with E. cinerea, F.v.M. See my C.R., Part XXI., pp. 1 and 2, and Plate 89.

As regards E. Stuartiana, F.v.M., var. cordata, Baker and Smith, see my C.R., Part XXI., p. 5 (1914), where I state that it is synonymous with E. cinerea, F.v.M. (var. multiflora, Maiden). See Part XXI., p. 7, Plates 89 and 90.

56. E. TERETICORNIS, Sm.

See C.R., Part XXXI., p. 5, Plate 128 (1917).

## 57. E. TRANSCONTINENTALIS, Maiden.

As to Victorian localities, see C.R., Part XXXIX., p. 270 (1919) with the localities indicated at Part XV., p. 171.

58. E. UNCINATA, Turcz.

See C.R., Part XIV., p. 143, Plate 62 (1912).

59. E. VIMINALIS, Labill.

See C.R., Part XXVIII., p. 167, Plates 117-119 (1916).

E. VIMINALIS, var. PLURIFLORA, J.H.M. (Maiden).

Although I cannot trace this reputed variety attributed to me at the moment of writing, attention may be invited to my note of another variety, viz., racemosa, F.v.M., in Proc. Roy. Soc. Tas., p. 90 (1918). The type appears to have come from Port Phillip, and I have given a number of Victorian localities in Part 64 of F.F.

## 60. E. VIRGATA, Sieb.

Synonymous with E. Luehmanniana, F.v.M. For a history of the confusion of this shrub (or very small tree) with E. Sieberiana, F.v.M., see C.R., Part XXXIX., p. 283 (1919); with C.R., Part IX., figs. 1 and 2, Plate 43; also Plate 44 (as E. Luehmanniana).

# 61. E. VIRIDIS, R. T. Baker.

This will be found figured and described as *E. acacioides*, A. Cunn., in C.R., XI., 45, figs. 9-12, Plate 52 (1910), and in my F.F., Part XLVIII., Plate 180 (whole plate), but I have since satisfied myself that Cunningham's material is mixed.

# 62. E. VITREA, R. T. Baker.

See C.R., Part VI., pp. 150 and 164, and Part VII., p. 189, with Plate 34 (1905); F.F., Part XXIII., p. 39, with Plate 86 (1906). See also *Journ. Roy. Soc. N.S.W.*, LII., 516 (1918), in which I try to clear up its relations to *E. vitellina*, Naudin.

For notes on Victorian localities see a paper by myself in Journ. Roy. Soc. N.S.W., LII., 517 (1918).

## Excluded Species.

In some cases it may be almost confidently predicted that they will be found to occur in Victoria, but it is best, in a list like this, to admit none without absolute proof.

#### E. AMYGDALINA, Labill.

See C.R., Part XXXVIII., p. 227 (1919), where I agree with Messrs. Baker and Smith that the original species appears to be confined to Tasmania. At the same time it should be looked for on the Victorian coast. For the *E. amygdalina* as understood by Bentham, Mueller, and other botanists, see C.R., Part VI.

#### E. CAPITELLATA, Sm.

For many years I concurred in the general opinion that this species, originally described from Port Jackson, extended to Victoria. See my C.R., Part VIII., p. 211, with Plate 37, in part (1907). I am now of opinion, as expressed in Part XLV., p. 147, that it does not extend to Victoria, and that some of the Victorian specimens are referable to E. Blaxlandi, Maiden and Cambage, Journ. Roy. Soc. N.S.W., LII., 495 (1918).

## E. DEALBATA, A. Cunn.

See C.R., Part XXXII., p. 48, Plates 134, 135 (1917). At p. 49 I have stated that it has been recorded from Albury, but the specimens are not quite satisfactory, nor are the Tumbarumba ones normal. Although these localities (especially the former) are close to Victoria, they make one pause before inferring that, on this evidence, the species occurs in Victoria. Professor Ewart tells me that he cannot find any trace of this specimen (quoted by Mr. Baker; C. Walter was an old collector of Mueller's); "all our records for dealbata are from New South Wales localities only." I cannot therefore accept it as a Victorian plant at present.

# E. fasciculosa, F.v.M.

The history of the confusion of this species with *E. paniculata*, Sm., is given at C.R., Part XIV. p. 140, with Plate 61 (1912). It is not a Victorian plant, so far as we know.

E. paniculata, Sm., is not a Victorian plant, in spite of my reference to it in C.R., XIII., 106, following Mueller. Mueller's

record is from Gippsland, a very unlikely locality for E. fasciculosa, F.v.M., which see.

Those who desire to see a figure of this species will find it in F.F., Part VIII., Plate 30 (1904).

## E. HAEMASTOMA, Sm.

I do not know of a Victorian locality.

## E. PIPERITA, Sm.

See C.R., Part X., p. 299, Plate 45 (1908). As regards its claim to be a Victorian species, see pp. 300, 302, 304. I think it is a doubtful Victorian plant at present. See also F.F., Part XXXIII., p. 38, Plate 124 (1909).

#### E. POPULIFOLIA, Hook.

An excellent Victorian Eucalyptus observer, Mr. Harry Hopkins, says in "Advance Australia," for October, 1909: "Another species not common in Victoria, but which extends eastward through New South Wales and to Queensland, according to von Mueller, is *Eucalyptus populifolia*—the poplar-leaved or shining box tree. I have not seen it west of the Tambo River." He has sent me specimens from Orbost and the Tambo River, whose foliage simulates that of *E. Baueriana* a good deal. Although I reject it as a Victorian plant on the evidence, I somewhat confidently look forward to its collection in the Mallee country, or north-west.

For a figure of E. populifolia see my F.F., Part XLVII., Plate 176 (1912).

# E. STRICTA, Sieb.

See C.R., Part XL., p. 336 (1920). It has not been proved to be a Victorian species so far.

## E. Woollsiana, R. T. Baker.

The Seymour plant is, I am satisfied, E. hemiphloia, var. microcarpa. As I am of opinion, already expressed in C.R., Part XI., under E. odorata and E. hemiphloia, that E. Woollsiana is a mixture of species, and as a full explanation requires additional figures, it cannot be fully dealt with at this place. It will be dealt with in Part XLVII., C.R.